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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/544,167	04/06/2000	Hiroyuki Urushiya	35.G2566	9371

5514 7590 09/27/2004

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EXAMINER

TRAN, NHAN T

ART UNIT PAPER NUMBER

2615

DATE MAILED: 09/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/544,167

Applicant(s)

URUSHIYA, HIROYUKI

Examiner

Nhan T. Tran

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2004 and 30 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,31-35 and 37 is/are pending in the application.
- 4a) Of the above claim(s) 34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,31-33,35 and 37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/2/2004 & 7/30/2004 has been entered.

Response to Arguments

2. Applicant's arguments filed 7/2/2004 have been fully considered but they are not persuasive.

On page 7 of the Applicant's Remarks, the Applicant asserts that Fossum does not teach or suggest that correction means do not use other defective pixels of a group to correct given defective pixels based on the regional information of the group, in a case in which the defective pixels in the group are corrected. However, it is clearly seen in Fossum, col. 5, lines 1-5 and col. 1, lines 53-67 that each defective group contains only defective pixels and all defective pixels of each group are replaced (corrected) by good neighboring pixels that are not in the group. At least for illustration, col. 3, line 52 – col. 4, line 27 describes that each defective group is indicated by a single value and the defective group is flagged during comparison for

Art Unit: 2615

compensation, and by virtue of using a delay line technique (as a simplest example), not only a defective row is replaced with a good nearest row, a defective column is also replaced with a good nearest column. Modifications for compensating other shapes of defective groups are also anticipated by the scope of invention of Fossum.

In view of the above, the Examiner believes that the interpretation of the present claimed invention does read on the cited references for at least the reasons discussed above and as stated in the following Office Action.

3. Furthermore, claim 34 is dependent of claim 7 which has been canceled. Therefore, claim 34 is also withdrawn from consideration.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 31-33, 35 & 37 are rejected under 35 U.S.C. 102(e) as being anticipated by Fossum et al (US 6,611,288).

Regarding claim 1, Fossum discloses an image processing apparatus (col. 1, lines 5-7 and col. 2, lines 15-20) comprising:

extraction means (control 200) for extracting (reading out) a pixel signal of an image pickup means that has a plurality of pixels, and for determining positional information (address) of defective pixels based on the pixel signal information (col. 2, lines 21-65);

block forming means (combination of control 200 and register 204) for judging whether a plurality of the defective pixels are adjacent to each other (contiguous dead pixels) on the basis of the positional information of the defective pixels and for extracting regional information (indicia in form of row number R, column number C and area type T) of the adjacent defective pixels and dividing each of adjacent defective pixels into groups (bad row, bad column, bad 3x3 area, etc.) (col. 3, lines 1-23);

storage means (300) for storing the extracted regional information of the adjacent defective pixels each the groups (Fig. 3; col. 3, lines 42-46);

correction means for correcting the defective pixels by using peripheral pixels of the defective pixels, wherein the correction means do not use the other defective pixels of the group to correct the defective pixels based on the regional information of the group in a case in which the defective pixels in the group are corrected (see col. 5, lines 1-5 and section 2 above).

Regarding claim 31, Fossum also discloses that the block forming means expresses the position and the width of the defective pixels adjacent in one direction using run-length coding in form of (R, C, T), wherein R is row number, C is column number and T is a three bit coding area type as described in col. 3, lines 12-23.

Regarding claim 32, Fossum teaches that the correction means takes a pixel region necessary (nearest pixel region as a simplest example) to correct the adjacent defective pixels from an output of the image pickup means and corrects those defective pixels in that pixel region by using the regional information (col. 3, line 55 – col. 4, line 27; col. 5, lines 1-5 and section 2 above).

Regarding claim 33, Fossum discloses that all pixels do not fall within the specified performance windows are identified and their addresses are stored in the registers 300 (see col. 2, lines 63-65).

Regarding claim 35, the method claim is met by the analysis of the apparatus claim 1.

Regarding claim 37, see the analysis of claim 1. Fossum also discloses that the operation of the imaging system is implemented by either hardware configuration or software configuration (col. 4, lines 24-27) and the operation is executed according to prestored routine or user-alterable routine (col. 3, lines 45-46) that indicates an inherent storage medium for storing a program to run the disclosed operation.

Conclusion

Art Unit: 2615

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Tran whose telephone number is (703) 605-4246. The examiner can normally be reached on Monday - Thursday, 8:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew B Christensen can be reached on (703) 308-9644. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NT.



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